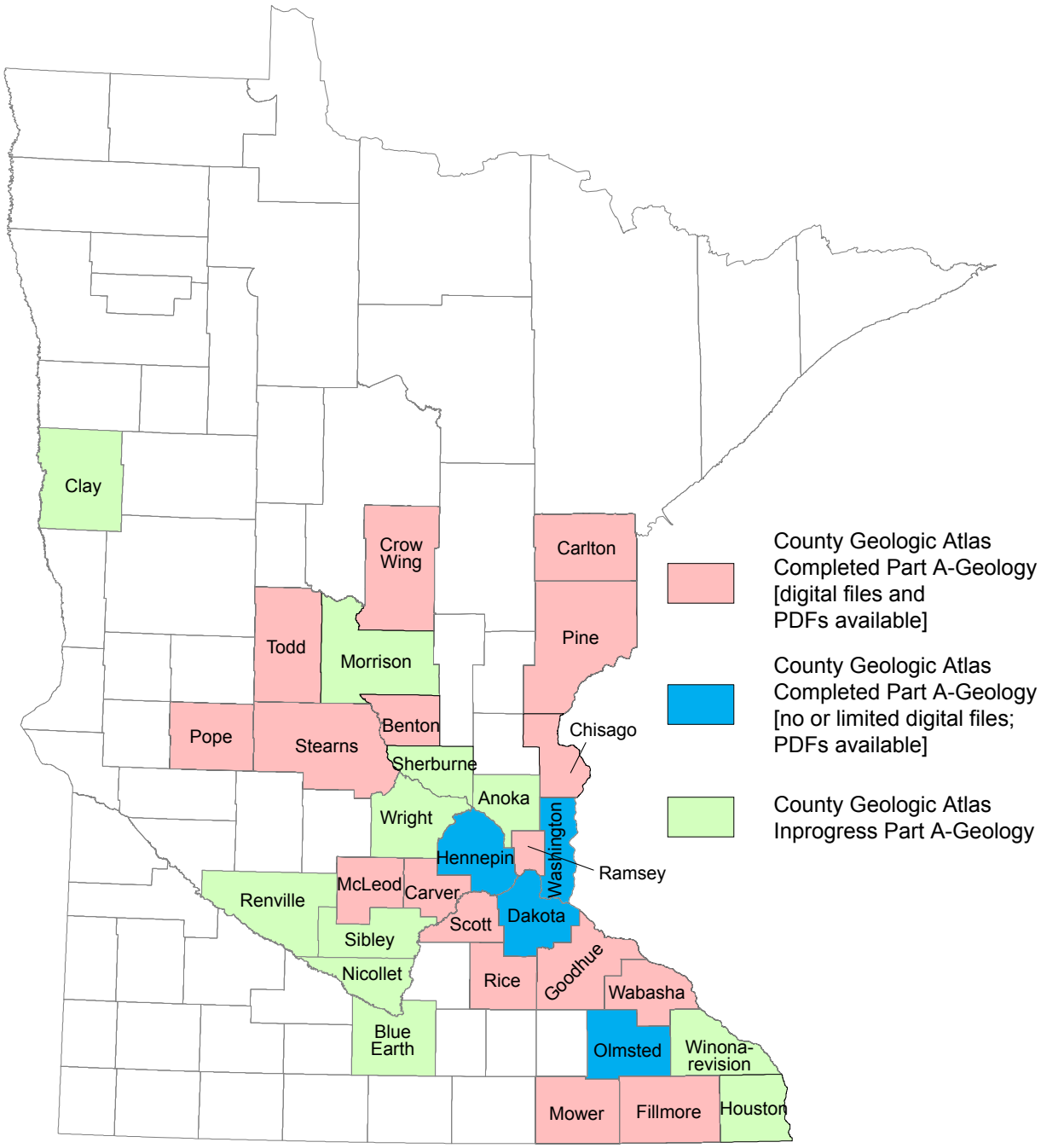
# Minnesota County Geologic Atlas Program

County geologic atlases provide information essential to sustainable management of ground water resources, for applications such as monitoring, water allocation, permitting, remediation, and well construction. They define aquifer properties and boundaries, as well as the connection of aquifers to the land surface and to surface water resources. They also provide a broad range of information on county geology, mineral resources (including construction materials), and natural history.

A complete atlas consists of a Part A prepared by Minnesota Geological Survey (MGS) that includes the water well database and 1:100,000 scale geologic maps showing properties and distribution of sediments and rocks in the subsurface, and a Part B constructed by the Department of Natural Resources (DNR) Division of Waters that includes maps of water levels in aquifers, direction of groundwater flow, water chemistry, and sensitivity to pollution. Atlases are usually initiated by a request from a county and an offer to co-fund or provide in-kind service. MGS is committed to the expeditious completion and periodic updating of atlases statewide.

Atlases begin with compilation of a database of subsurface information. The most abundant data source is the construction records of water wells. With the cooperation of the County, accurate digital locations are established for these wells to support their use in mapping. Concurrently, geologists visit the project area to describe and sample landforms and exposures of rock or sediment. An initial assessment of the geologic data is then completed to focus additional data gathering including shallow and deep drilling programs. Analysis of the complete data set is then completed, and maps and associated databases are prepared for use in geographic information systems (GIS) and distribution via DVD and the web. Most of the products are also printed for the benefit of users who prefer this format. GIS files are available for atlases beginning with C-7. Scott County has been revised, so the original C-1 maps are available as scans, while the C-17 revision is available as GIS files.

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